

WHAT IS CLAIMED:

1. A rotatable, removable media path jam clearance apparatus adapted for installation in a substantially rigid supporting structure, the apparatus comprising:

at least one media drive mechanism for moving flexible media through at least one media path; and

a jam clearance element, wherein said jam clearance element comprises:

at least two guide elements having facing surfaces, wherein said facing surfaces define guide surfaces for at least one media path, said guide elements further having external surfaces capable of supporting said flexible media as it is wrapped around said external surfaces;

pivotal support means including a rotatable element for rotational movement of said jam clearance element within the substantially rigid supporting structure; and

a movable element for translational movement of said jam clearance element substantially perpendicular to the processing direction to provide at least partial extraction of said jam clearance element from the substantially rigid supporting structure.

2. The media path jam clearance apparatus according to claim 1, wherein said facing surfaces define at least two media paths, said guide elements comprising:

a media path director element having a plurality of guide surfaces, said media path director including access means for providing access of media to media paths; and

a plurality of baffles, wherein each of said baffles has a guide surface facing a guide surface of said media path director element to define at least one media path, and further having at least one external surface capable of supporting said flexible media as it is wrapped around said external surface.

3. The media path jam clearance module according to claim 1, wherein said media drive mechanism comprises at least two pinch rollers and at least two opposing nip baffle pairs.

4. The media path jam clearance module according to claim 3, wherein the two parts of each said nip baffle pair are interdigitated.

5. The media path jam clearance module according to claim 3, wherein said nip baffle pairs are retractable.

6. The media path jam clearance module according to claim 3, wherein each said nip baffle pair is interdigitated with the mating parts of at least one of said media path director elements.

7. The media path jam clearance module according to claim 1, further comprising media state sensors.

8. The media path jam clearance module according to claim 2, wherein said access means comprises articulating tips.

9. The media path jam clearance module according to claim 1, wherein said media drive mechanism comprises at least one member selected from the group consisting of spherical nip actuators, piezoelectrically driven brushes, and airjets.

10. The media path jam clearance apparatus according to claim 1, wherein said facing surfaces define at least three media paths.

11. The media path jam clearance module according to claim 1, wherein said rotatable element comprises a shaft.

12. The media path jam clearance module according to claim 1, wherein said pivotal support means further comprises a handle.

13. A media handling system including at least one media handling module, a plurality of input modules, a plurality of output modules, and a plurality of media path jam clearance apparatuses adapted for installation in a substantially rigid supporting

structure, wherein each of the plurality of media path jam clearance apparatuses comprises:

at least one media drive mechanism for moving flexible media through at least one media path; and

a jam clearance element, wherein said jam clearance element comprises:

at least two guide elements having facing surfaces, wherein said facing surfaces define guide surfaces for at least one media path, said guide elements further having external surfaces capable of supporting said flexible media as it is wrapped around said external surfaces;

pivotal support means including a rotatable element for rotational movement of said jam clearance element within the substantially rigid supporting structure; and

a movable element for translational movement of said jam clearance element substantially perpendicular to the processing direction to provide at least partial extraction of said jam clearance element from the substantially rigid supporting structure.

14. The media handling system according to claim 13, wherein said facing surfaces define at least two media paths, said jam clearance element further comprising:

a media path director element having a plurality of guide surfaces, said media path director including access means for providing access of media to media paths; and

a plurality of baffles, wherein each of said baffles has a guide surface facing a guide surface of said media path director element to define at least one media path, and further having at least one external surface capable of supporting said flexible media as it is wrapped around said external surface..

15. The media handling system according to claim 14, wherein said media drive mechanism comprises at least two pinch rollers and at least two opposing nip baffle pairs.

16. The media handling system according to claim 15, wherein the two parts of each said nip baffle pair are interdigitated.

17. The media handling system according to claim 15, wherein said nip baffle pairs are retractable.

18. The media handling system according to claim 15, wherein each said nip baffle pair is interdigitated with the mating parts of at least one of said media path director elements.

19. The media handling system according to claim 14, further comprising media state sensors.

20. The media handling system according to claim 14, wherein said access means comprises articulating tips.

21. The media handling system according to claim 13, wherein said media drive mechanism comprises at least one member selected from the group consisting of spherical nip actuators, piezoelectrically driven brushes, and airjets.

22. The media handling system according to claim 13, wherein said facing surfaces define at least three media paths.

23. The media handling system according to claim 13, wherein said rotatable element comprises a shaft.

24. The media handling system according to claim 13, wherein said pivotal support means further comprises a handle.

25. A method for operating a rotatable, removable media path jam clearance apparatus adapted for installation in a substantially rigid supporting structure, wherein the media path jam clearance apparatus includes at least one jam clearance element, at least one media drive mechanism and guide baffles, the method comprising:

driving at least one unit of flexible media through at least one media path located within the media path jam clearance element, wherein said media path is defined by at least two guide elements having facing surfaces defining said media path and external surfaces capable of supporting said flexible media as it is wrapped around said external surfaces;

retracting the guide baffles to a position sufficient to prevent interference of the guide baffles with rotational movement of the jam clearance element within the substantially rigid supporting structure;

causing rotational movement of the jam clearance element about pivotal support means within the substantially rigid supporting structure when said flexible media has become jammed in said media path, such that said captured unit of flexible media is wrapped around said external surfaces; and

causing translational movement of the jam clearance element substantially perpendicular to the processing direction to provide at least partial extraction of the jam clearance element from the substantially rigid supporting structure.